

THE USE OF TESTOSTERONE IN ELDERLY WOMEN

A PRELIMINARY REPORT

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Androgens affect skin by causing increases in vascularity, in content of oxy-hemoglobin, and in rate of blood flow. They also bring about an increase in pigmentation due to augmentation of melanogenesis and supply of hemoglobin; as well as stimulation of sebaceous glands and changes in texture related to salt, water and nitrogen retention. Various observers have noted these effects in experimental animals (1, 2, 3, 4), and also in man (5, 6, 7). There are, however, only scattered observations concerning the clinical use of these compounds in specific skin diseases (8, 9, 10). One of the present authors (B. B. W.) had previously noted striking changes in the skin of patients with carcinoma of the breast who were receiving testosterone therapy (11).

EXPERIMENTAL CONDITIONS

The present report concerns five female patients, all past 70 years of age, all inmates of a mental institution, all known to have had chronic skin disease for more than one year, and who had not responded to other therapy. During the clinical trial with androgen therapy, these patients were kept in their usual environment and received the same diet and general care to which they were accustomed.

It is to be emphasized that during the period of this study no local applications were used, and the patients received no other medications.

Before instituting testosterone therapy, photographs were taken. The patients were then observed at frequent intervals for the next six weeks to confirm the chronic nature of the lesions. Following this, Testosterone Propionate,¹ 25 mgm. in sesame oil and benzyl alcohol (1 cc. contains 100 mgm.) was administered daily for the next two weeks. When larger doses were attempted in one case too great a retention of fluid resulted in symptoms of cardiac failure. This was readily controlled by temporarily discontinuing testosterone and substituting a mercurial diuretic for several days. In most cases it was found advisable eventually to reduce the amount of testosterone to 25 mgm. every other day.

Photographs were taken at the end of three weeks and again at the end of six weeks of therapy.

All of these cases presented showed evidence of what is commonly called "metabolic deficiency" in one phase or another, i.e., extremely dry, crepe-like non-elastic, gray skin bronzing, petechiae, mild keratoses and finally actual weeping dermatitis and ulceration. Most cases had deficient dorsal pedis pulses.

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A B C
CASE II
Photograph A.—Before treatment.
Photograph B.—Showing pronounced edema at end of one month.
Photograph C.—Showing excellent response on the lower dose schedule, after the second month.

CASE SUMMARIES

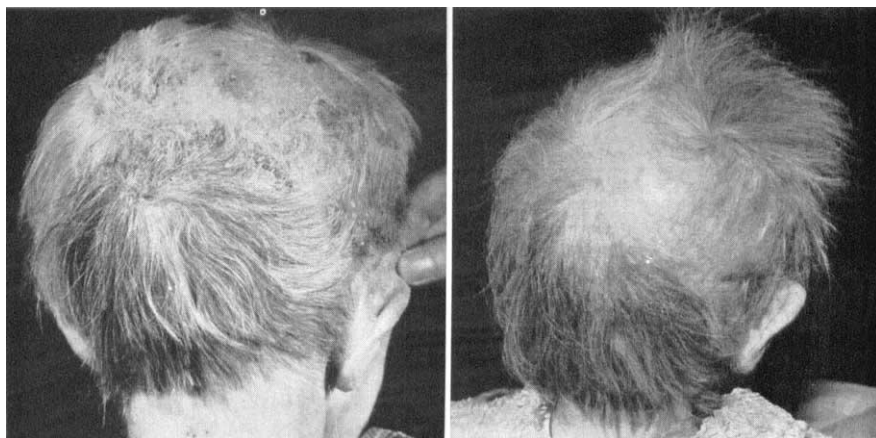
Case I. Mrs. E. W. E., aged 75, eczema of the lower legs and feet with bronzing of the feet and hands, boggy eyelids, ulcer of left lateral foot unhealed for over one year, crepe-like dehydrated skin, bright red and dry tongue. Not decompensated.

February 7, 1950—Testosterone injections begun.

March 21, 1950—Ulcer healed, edema of feet gone, scaling dermatitis improved.

April 25, 1950—Skin very much improved and patient much more cheerful.

Case II. Mrs. M. J., aged 70, excoriated nummular dermatitis of hands, legs, ankles, and dorsum of feet. The skin was very dry, gray, and slightly bronzed in scattered areas, with vesicular and slightly crusted, subacute, irregularly defined patches of the dorsum of thumb and index finger areas and the dorsal terminal phalangeal surfaces of other fingers. The thenar palmar eminence was also affected. There was a weeping, crusted dermatitis in patches on both legs, but the anterior right ankle and dorsal foot were almost solidly in-



CASE V

Photograph 1.—Shows severe eczematized scalp with definite thinning of hair.

Photograph 2.—(Two months later) Shows scalp practically clear and a definite regrowth of hair, more striking even than apparent by the picture.

involved in what appeared to be an exacerbation of an old lichenified dermatitis, appearing somewhat atopic in its morphology.

7 February, 1950—Testosterone injections begun.

21 March, 1950—Patient showed improvement of the hands but decided edema of the feet and legs, and the injections were discontinued for a few days and resumed at 25 mgm. every second day. The improvement was then remarkable, as is seen in the photographs.

Case III. Mrs. S. H., aged 68, mildly weeping, excoriated dermatitis of left foot. Had jaundice in October, 1949. Rosacea of face. Purpuric spots on legs and forearms. Senile arteriosclerosis; moderate hypertensive; albuminuria; glycosuria.

The response in this case was not remarkable. There was, of course, no actual change in the physical condition, although the skin was of better texture and the purpuric spots were less numerous.

Case IV. Mrs. M. W., aged 71, metabolic deficiency with red, thin, dry skin of hands and feet. Tongue, eyes, and nose normal. This patient sustained a fractured hip shortly after the second photograph was taken and did not recover.

Case V. Mrs. L. H., aged 85, admitted to the institution in 1905. Severe weeping derma-

titis of scalp, eyelids show fissuring at the canthi, some keratoses of the palms and soles. No dependent edema. Patient weeping and melancholy.

7 February, 1950—Testosterone injections begun.

21 March, 1950—Marked improvement in the texture of the skin. Scalp almost healed, and marked improvement in the patient's emotional status. Cheerful and cooperative.

25 April, 1950—As evidenced by photograph, there was a marked apparent regrowth of hair of the scalp.

There was no recognizable change in secondary sex characteristics in these elderly women by any criterion, although the usual dosage of 200 to 300 mgm. per month was greatly exceeded.

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